

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Previously Presented) A crash-safe vehicle control system for controlling an own vehicle, comprising:

an object-information obtaining device operable to obtain object information on each of at least one preceding object existing in front of the own vehicle, the object information including information relating to a position of each preceding object relative to the own vehicle;

an operating device operable in the presence of a high possibility of crashing of the own vehicle with one of said at least one preceding object; and

a crash-safe control device operable to control the operating device on the basis of the object information on said at least one preceding object obtained by the object-information obtaining device,

and wherein said crash-safe control device is operable to effect a non-first-preceding-object-information-dependent control of said operating device, on the basis of non-first-preceding-object information obtained by said object-information obtaining device, in the presence of a high possibility of crashing of the own vehicle with a first preceding vehicle which is one of said at least one preceding object and which exists immediately in front of the own vehicle, the non-first-preceding-object information relating to at least one non-first preceding object each of which is one of said at least one preceding object and exists in front of the first preceding vehicle,

said crash-safe control device being operable to estimate a possibility of crashing between the first preceding vehicle and said at least one non-first preceding object and control the operating device on the basis of the estimated possibility of crashing between the first preceding vehicle and the at least one non-first preceding object.

2. (Canceled)

3. (Previously Presented) The crash-safe vehicle control system according to claim 1, wherein the object-information obtaining device includes an object-information obtaining radar device operable to detect a plurality of preceding objects which exist in front of the own vehicle and which lie on an own lane on which the own vehicle is to run, the object-information obtaining radar device being operable to obtain the object information on each of said at least one preceding object.

4. (Original) The crash-safe vehicle control system according to claim 3, wherein the object-information obtaining radar device of the object-information obtaining device is a millimeter wave type radar device.

5-7. (Canceled)

8. (Currently Amended) The crash-safe vehicle control system according to claim 1, wherein the at least one non-first preceding object is a second preceding vehicle existing immediately in front of the first preceding vehicle, and the crash-safe

control devices device is operable to estimate a possibility of crashing between the first and second preceding vehicles, and control the operating device on the basis of the estimated possibility of crashing between the first and second preceding vehicles.

9. (Previously Presented) The crash-safe vehicle control system according to claim 1, wherein the crash-safe control device is operable to control a moment of initiation of an operation of the operating device such that the moment of initiation when the possibility of crashing between the first vehicle and the at least one non-first preceding object is relatively high is advanced with respect to that when the possibility is relatively low.

10. (Previously Presented) The crash-safe vehicle control system according to claim 1, wherein the crash-safe control device is operable to control the operating device such that an effect to be achieved by the operation of the operating device when the possibility of crashing between the first vehicle and the at least one non-first preceding object is relatively high is increased with respect to that when the possibility is relatively low.

11-13. (Canceled)

14. (Previously Presented) A crash-safe vehicle control system for controlling an own vehicle, comprising:

an object-information obtaining device operable to obtain object information on each of at least one preceding object existing in front of the own vehicle, the object information including information relating to a position of each preceding object relative to the own vehicle;

an operating device operable in the presence of a high possibility of crashing of the own vehicle with one of said at least one preceding object; and

a crash-safe control device operable to control the operating device on the basis of the object information on said at least one preceding object obtained by the object-information obtaining device; and

wherein said crash-safe control device is operable to effect a non-first-preceding-object-information-dependent control of said operating device, on the basis of non-first-preceding-object information obtained by said object-information obtaining device, in the presence of a high possibility of crashing of the own vehicle with a first preceding vehicle which is one of said at least one preceding object, and which exists immediately in front of the own vehicle, the non-first-preceding-object information relating to at least one non-first preceding object each of which is one of said at least one preceding object and exists in front of the first preceding vehicle,

the object-information obtaining device obtaining the information on the first preceding vehicle, as the object information on one of said at least one preceding object, and the crash-safe control device is operable to estimate at least one relationship value indicative of a relationship between the first preceding vehicle and said at least one non-first preceding object, on the basis of the information on the first preceding vehicle and said non-first-preceding-object information on the at least one

non-first preceding object, which have been obtained by the object-information obtaining device, said at least one relationship value being selected from a distance between the first preceding vehicle and one of the at least one non-first preceding object, a time up to a moment of arrival of the first preceding vehicle at a present position of said one non-first preceding object, and a time up to a moment of crashing of the fist preceding vehicle with said one non-first preceding object, the crash-safe control device controlling the operating device on the basis of the estimated at least one relationship value.

15. (Original) The crash-safe vehicle control system according to claim 14, wherein the object-information obtaining device obtains the information on a second preceding vehicle existing immediately in front of the first preceding vehicle, as the object information on said one non-first preceding object, and the crash-safe control device is operable to estimate, as the at least one relationship value, at least one of the distance between the first and second preceding vehicles, the time up to the moment of arrival of the first preceding vehicle with the second preceding vehicle, and the time up to the moment of crashing of the first preceding vehicle with the second preceding vehicle, on the basis of the information on the first preceding vehicle and the information on the second preceding vehicle, which have been obtained by the object-information obtaining device, the crash-safe control device controlling the operating device on the basis of the estimated at least one of said distance and times.

16. (Currently Amended) The crash-safe vehicle control system according to claim 14, wherein the crash-safe control device is operable to control a moment of

initiation of an operation of the operating device such that the moment of initiation when the estimated at least one relationship value is relatively small is advanced with respect to that when the estimated at least one relationship value is relatively large.

17. (Previously Presented) The crash-safe vehicle control system according to claim 14, wherein the crash-safe control device is operable to control the operating device such that an effect to be achieved by the operation of the operating device when the estimated at least one relationship value is relatively small is increased with respect to that when the estimated at least one relationship value is relatively large.

18-20. (Canceled)

21. (Currently Amended) The crash-safe vehicle control system according to claim 1, wherein the crash-safe control device is operable to additionally effect the a width-related-information-dependent control of said operating device on the basis of width-related information relating to at least one of a width and a widthwise position of at least one specific object selected from said at least one preceding object.

22. (Original) The crash-safe vehicle control system according to claim 21, wherein the object-information obtaining device includes a width-related-information obtaining device operable to obtain the width-related information relating to said at least one specific object.

23. (Original) The crash-safe vehicle control system according to claim 22, wherein the width-related-information obtaining device includes an object-imaging camera device operable to take an image of each of the at least one preceding object, and an image-data processing device operable to process image data representative of the image taken by the object-imaging camera device, for obtaining the width-related information on each of the at least one specific object.

24. (Previously Presented) The crash-safe vehicle control system according to claim 22, wherein the object-information obtaining device includes an object detecting radar device operable to detect said at least one preceding object, in addition to the width-related-information obtaining device.

25. (Original) The crash-safe vehicle control system according to claim 24, wherein the object detecting radar device is operable to obtain information relating to an approximate position of each of the at least one preceding object, and the width-related-information obtaining device is operable to obtain the width-related information on each of the at least one specific object, on the basis of the information relating to approximate position obtained by the object detecting radar device.

26. (Previously Presented) The crash-safe vehicle control system according to claim 24, wherein the width-related-information obtaining device selects said at least one specific object from said at least one preceding object detected by the object

detecting radar device, and obtains the width-related information on each of the at least one specific object.

27. (Previously Presented) The crash-safe vehicle control system according to claim 21, wherein the crash-safe control device is operable to control the operating device on the basis of a widthwise center position of the at least one specific object represented by the width-related information.

28. (Previously Presented) The crash-safe vehicle control system according to claim 21, wherein the crash-safe control device is operable to control the operating device, on the basis of at least one of widthwise opposite positions of each of the at least one specific object which are represented by the width-related information.

29. (Previously Presented) The crash-safe vehicle control system according to claim 21, wherein the crash-safe control device is operable to estimate, on the basis of the width-related information of the at least one specific object, a lap ratio of the own vehicle and each of the at least one specific object, said lap ratio being a ratio of an overlapping width of the own vehicle with respect to its overall width, which is expected if the own vehicle collides with said each specific object over said overlapping width, the crash-safe control device being operable to control the operating device on the basis of the estimated lap ratio.

30. (Original) The crash-safe vehicle control system according to claim 29, wherein the crash-safe control device is operable to control a moment of initiation of an operation of the operating device such that the moment of initiation when the estimated lap ratio is relatively high is advanced with respect to that when the possibility is relatively low.

31. (Previously Presented) The crash-safe vehicle control system according to claim 29, wherein the crash-safe control device is operable to control the operating device such that an effect to be achieved by the operation of the operating device when the estimated lap ratio is relatively high is increased with respect to that when the estimated lap ratio is relatively low.

32. (Previously Presented) The crash-safe vehicle control system according to claim 21, wherein the crash-safe control device is operable to determine, on the basis of the width-related information on said at least one specific object, whether each of the at least one specific object lies on an own lane on which the own vehicle is to run, and control the operating device on the basis of a result of said determination.

33. (Original) The crash-safe vehicle control system according to claim 32, wherein the crash-safe control device is operable to determine that each of the at least one specific object lies on the own lane, when said each specific object is at least partly located within a width of the own lane.

34. (Previously Presented) The crash-safe vehicle control system according to claim 21, wherein the object-information obtaining device is operable to obtain the width-related information on each of at least one specific preceding vehicle each of which is one of said at least one specific object and is a preceding vehicle existing in front of the own vehicle, and the crash-safe control device is operable to control the operating device on the basis of the width-related information on each of the at least one specific preceding vehicle.

35. (Canceled)